



# **Recent Experience of US Safety Testing of Foreign Ammunition**

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# Foreign Items Tested

1. 40mm Practice Cartridge, MK 281 MOD 0 and MOD 1
  - Tested at Aberdeen (APG), NSW Crane (MOD 0) and Rheinmetall Germany (MOD 1)
2. 40mm Practice Cartridge, M1110
  - Tested at Rheinmetall (Germany) and NTS Camden, AR
3. Diversionary Stun Grenade, MK 13 MOD 0
  - Tested at NSW Dahlgren, Rheinmetall and NTS Camden
4. 66mm IR Screening Smoke, MK 1 MOD 0
  - Tested at NSW Dahlgren and Rheinmetall (Germany)



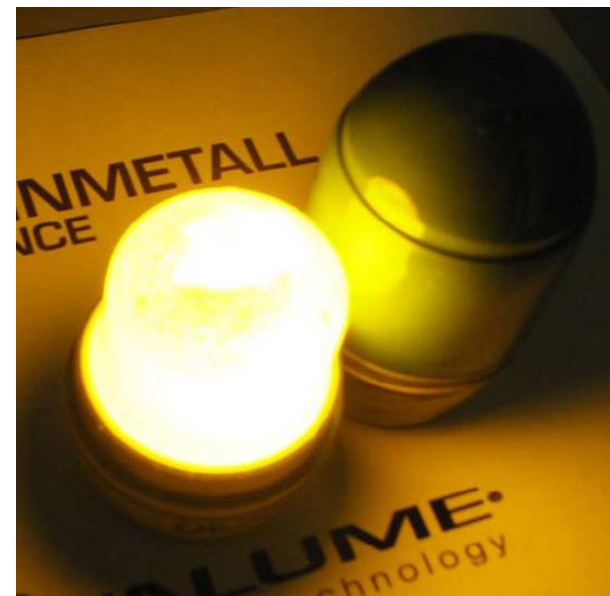
# 40mm Practice Cartridge MK 281 MOD 0 and MOD 1



- ❑ Testing started in 1999, completed in 2002 (MOD 0)
- ❑ FCT and USMC Funding



# 40mm Practice Cartridge M1110



- ❑ Testing started in 2006, completed in 2009
- ❑ FCT and USMC Funding





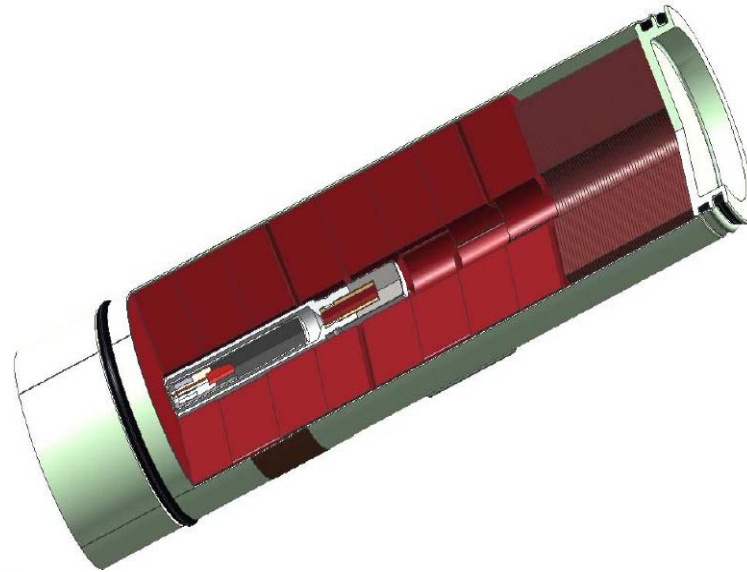
# Diversiónary Stun Grenade MK 13 MOD 0



- ❑ Testing started in 2006, completed in 2008
- ❑ USN and USSOCOM Funding



# 66mm IR Screening Smoke MK 1 MOD 0



- ❑ Testing started in 2006, completed in 2009
- ❑ USMC Funding



66mm Grenade visual & infrared L114A1



# US Government Agencies

- ☐ NSWC Dahlgren and Crane
  - ☐ Technical and Contractual Support
- ☐ NOSSA Indian Head
  - ☐ Approval of Foreign Energetic Materials and IHCs
- ☐ USMC Quantico
- ☐ DDESB – Safety Approvals
- ☐ WSESRB – Safety Approvals
- ☐ DCMA Southern Europe
  - ☐ Quality and FAT Support
  - ☐ Transportation to USA from Foreign Contractor





# US Contractor Test Facilities



## National Technical Systems (NTS), Camden AR



### MIL-STD-2105 / STANAG

- Fast Cook-Off
- Slow Cook-Off





# Foreign Contractor Test Facilities

## Testing Center Unterlues (EZU), Germany



**Certified to ISO 9001:2000 and AQAP 110**



## Some of the Changes since 2000

- ☐ **Defense Acquisition System Updates**
  - ☐ **DODI 5000-02**
- ☐ **Insensitive Munitions Updates**
- ☐ **More severe Testing required, for example Helicopter Vibration Testing**
- ☐ **Increased Attention to Design for Demilitarization**
- ☐ **Increased Attention to Life Cycle Environmental Compliance**



# Difficulties for Foreign Exporters of Ammunition

- ☐ **Different Interpretation of Test Procedures between US and Europe**
  - ☐ **NATO STANAGs and MIL-STDs**
- ☐ **Compliance with US Requirements for Energetic Materials and Compositions**
  - ☐ **NAVSEA SWO Compliance**
- ☐ **FOB Origin and Destination Contracts**
  - ☐ **Commercial Shipments need BATF Approval**





# **Overseas Testing of Foreign Ammunition**

- 1. Can save a lot of Time and Money**
- 2. Needs constant Oversight to ensure detailed Compliance with US Testing Requirements**
- 3. Oversight Resources provided by US Technical / Program Managers and DCMA in Europe**